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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,209	01/20/2004	Young-Soo Han	CHAES7.003AUS	2517

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EXAMINER

JACKSON, ANDRE L

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,209

Applicant(s)

HAN ET AL.

Examiner

Andre' L. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-10 and 16-23 is/are rejected.
- 7) ☒ Claim(s) 3,5 and 11-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

Claims 10 and 11 are objected to because of the following informalities:

In claim 10, change "interdependently" to read -- independently -- to conform with applicant's subsequent claims. In claim 11, next to last line, change "rotates" to -- rotate --. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6-10, 16-20 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6, 115,886 to Fujita. Fujita discloses a hand held electronic apparatus (10) comprising;

a first unit (11); a second unit (12), wherein at least one of the first and second units comprises a display, and wherein at least one of the first and second units comprises an information input device; a hinge device interconnecting the first and second units such that the first and second units can rotate relative to the hinge device, the hinge device comprising;

a housing (11b, 12b); a first rotating member (1) coupled to the first unit and rotatable about the first rotation axis with respect to the housing; a second rotating member (1) coupled to the second unit and rotatable about the second rotation axis with respect to the housing;

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a first linearly moving member (8) cooperating with the first rotating member and linearly movable with respect the housing; a second linearly moving member (8) cooperating with the second rotating member and linearly movable with respect the housing; a first resilient member (9) urging the first linearly moving member against the first rotating member; and a second resilient member (9) urging the second linearly moving member against the second rotating member (Fig. 5).

As to claims 2, 4, 9, 10, 18 and 19, the first and second rotating member are independently and engagedly rotated with the first unit and second unit respectively, while the first and second linearly moving members are independently moved during rotation of the first and second rotating members respectively.

As to claims 6-8, the first and second rotating members each include a cam member (6) and the first and second linearly moving members each include a cam follower member (8b) cooperating with the respective cam member of the rotating members. The respective cam members include upward and downward slanting surfaces as seen in Fig. 3. The cam member further defines first and second insertion grooves (between cam surfaces 6a) downwardly slanting into which a respective cam follower member can be inserted thereto, and a horizontal surface (Fig. 3). As seen in Fig. 11, at a foot of the fixing groove a horizontal surface is contiguous at the fixing groove, wherein stoppers (11a) having grooves at both ends of the cam member prevent movement of a respective cam follower member out of engagement thereof.

As to claims 16, 17 and 20, Fujita further discloses that the first and second rotating members define protrusion portions or rod ends (4) and the first and second linearly moving members include a groove (8a) defining a track into which the protrusion portions can be

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inserted and guided therewith, wherein the first and second linearly moving members and the first and second resilient members are fitted around the rod ends.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujita in view of USPN 5732331 to Harms. Although Fujita discloses a hinge device useable with a small electronic apparatus, Fujita does not disclose or suggest that the housing further includes passages through which a circuit wire passes connecting the first and second units as claimed. Harms teaches a portable device (10) comprising a first main unit (12) and a second flip unit (14) interconnected via a hinge (30). The hinge comprises a hinge housing (32, 34, 36) defining passage openings through which a circuit wire (76) electronically connects the units together while the hinge allows the second flip unit to be easily detached and reattached from and with the main unit, decreasing possibility of damage of the electrical connecting parts when rotated. Therefore, it would have been obvious to one having ordinary skill in the art to modify the electronic apparatus of Fujita to incorporate the portable device of Harms to provide an improved electronic device comprising an enhanced mechanical and electronic hinge connection defining a hinge housing through which a circuit wire electronically connects the units together while the

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hinge allows the second flip unit to be easily detached and reattached, decreasing a possibility of damage of the electrical connecting parts when rotated or accidentally dropped.

Allowable Subject Matter

Claims 3, 5 and 11-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Applicant's Arguments

Applicant's arguments filed in the Amendment of May 9, 2005, with respect to the rejection(s) of claim(s) 1, 2, 4, 6, 7 and 9-20 over Miyazaki have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of applicant's amendment to the pending claims. Accordingly, #6,115,886 to Fujita has been applied and used to meet the structural limitations as claimed. Thus, claims are found to be unpatentable over Fujita and claims are objected to.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' L. Jackson whose telephone number is (571) 272-7067. The examiner can normally be reached on Mon. - Fri. (9:30 am - 6 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ALJ

André L. Jackson
Patent Examiner
AU 3677


ROBERT J. SANDY
PRIMARY EXAMINER